

Claims:

1. A pedestal for supporting a substrate in a plasma etching chamber, comprising:
 - a body, the body being configured to receive an RF power; and
 - a substrate support base along an upper surface of the body, the substrate support base having an outer edge, and an intermediate substrate support ridge for receiving and supporting the substrate;
 - and wherein at least a portion of the substrate support base outside of the intermediate substrate support ridge is fabricated from a dielectric material.
2. The pedestal of claim 1, wherein the portion of the substrate support base within the substrate support ridge is fabricated from a metallic material.
3. The pedestal of claim 2, wherein the portion of the substrate support base fabricated from a dielectric material is formed by placing a layer of dielectric material along a top surface of the substrate support base outside of the substrate support ridge in order to form a dielectric ring.
4. The pedestal of claim 3, wherein the substrate support ridge is fabricated from a metallic material.
5. The pedestal of claim 3, wherein the dielectric material is fabricated from materials selected from the group consisting of a polymeric material, a ceramic material, and combinations thereof.
6. The pedestal of claim 2, wherein the portion of the substrate support base fabricated from a dielectric material defines substantially the entire thickness of the substrate support base outside of the substrate support ridge.

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7. The pedestal of claim 6, wherein the substrate support ridge is fabricated from a metallic material.
8. The pedestal of claim 6, wherein the dielectric material is fabricated from materials selected from the group consisting of a polymeric material, a ceramic material, and combinations thereof.
9. The pedestal of claim 1, further comprising a cover configured to be received on the substrate support base.
10. A pedestal for supporting a reticle in a plasma etching chamber, comprising:
 - a body, the body being configured to receive an RF power;
 - a reticle support base along an upper surface of the body, the reticle support base having an outer edge, and an intermediate reticle support ridge for receiving and supporting the reticle;
 - and wherein at least a portion of the reticle support base outside of the intermediate substrate support ridge is fabricated from a dielectric material.
11. The pedestal of claim 10, wherein:
 - the portion of the reticle support base within the reticle support ridge is fabricated from a metallic material;
 - the reticle support ridge is fabricated from a metallic material; and
12. The pedestal of claim 10, wherein the dielectric material is fabricated from at least one of a polymeric material and a ceramic material.
13. The pedestal of claim 12, wherein the portion of the reticle support base fabricated from a dielectric material is formed by placing a layer of dielectric material along a top surface of the reticle support base outside of the reticle support ridge in order to form a dielectric ring.

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14. The pedestal of claim 12, wherein the portion of the reticle support base fabricated from a dielectric material defines substantially the entire thickness of the reticle support base outside of the reticle support ridge

15. A plasma etching chamber having a pedestal therein for supporting a reticle, comprising:

- a chamber body defining a base wall, a side wall and a dome;

- a gate along the side wall for permitting a reticle to be moved into the plasma etching chamber; and

- a reticle support member for supporting a reticle within the plasma etching chamber during processing, the reticle support member comprising:

- a body, the body being configured to receive an RF power;

- a reticle support base along an upper surface of the body, the reticle support base having an outer edge, and an intermediate reticle support ridge for receiving and supporting the reticle;

- and wherein at least a portion of the reticle support base outside of the intermediate substrate support ridge is fabricated from a dielectric material.

16. The chamber of claim 15, wherein:

- the portion of the reticle support base within the reticle support ridge is fabricated from a metallic material;

- the reticle support ridge is fabricated from a metallic material; and

17. The chamber of claim 16, wherein the dielectric material is fabricated from at least one of a polymeric material and a ceramic material.

18. The chamber of claim 17, wherein the portion of the reticle support base fabricated from a dielectric material is formed by placing a layer of dielectric material along a top surface of the reticle support base outside of the reticle support ridge in order to form a dielectric ring.

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19. The chamber of claim 17, wherein the portion of the reticle support base fabricated from a dielectric material defines substantially the entire thickness of the reticle support base outside of the reticle support ridge